

### **REMARKS**

Claims 1-23 were filed in the original case. Claims 1-23 were cancelled and Claims 24-44 were added in a previous amendment. Claims 24-44 were cancelled and Claims 45-71 were added in a previous amendment. Claims 69 and 70 were cancelled in a previous amendment. Claims 45-68, and 71 are cancelled and claims 72-107 are added in the present amendment. These cancellations are made without acquiescing to the Examiner's rejections, but are made to further prosecution and Applicant's business interests. Applicant reserves the right to prosecute Claims 45-68 and 71 (or similar Claims) in the future. Therefore, Claims 72-107 are currently pending.

In the Office Action dated August 24, 2004 the Examiner has made three rejections. The currently pending rejections are:

- 1) Claims 45, 48-68, 71 stand rejected under 35 U.S.C. 102(b) in view of:
  - a) 1997 Boehringer Mannheim Biochemicals Catalog.
  - b) 1996 Perkin Elmer, PCR Systems, Reagents & Consumables catalog.
- 2) Claims 45-68, 71 stand rejected under 35 U.S.C. 102(b) in view of:
  - a) 1993 Applied Biosystems Catalog.
- 3) Claims 45, 48-68, 71 stand rejected under 35 U.S.C. 103(a) in view of:
  - a) US Publication 2002/0119468 ("Rosen") and The Scientist, Vol 9, No 15, page 20, July 1995 ("Ahern")
  - b) Neurology, Vol 54, pages 2077-2081, June 13, 2000 ("Tarkowski") and "Ahern".

Claims 45-68 and 71 are canceled herein, rendering these rejections moot. Applicant believes that the pending Claims are fully supported and are not taught by the prior art. Therefore Claims 72-107 should be passed into allowance.

## REJECTIONS

For clarity, the rejections at issue are set forth by number in the order they are herein addressed.

### **I. THE CITED REFERENCES DO NOT TEACH EACH AND EVERY ELEMENT OF THE CLAIMS**

In the Office Action of August 24, 2004, the Examiner has rejected Claims 45, 48-68, and 71 under 35 U.S.C. 102(b) as being anticipated by the catalogs of two manufacturers (Boehringer Mannheim and Perkin Elmer), and has rejected Claims 45-68, and 71 under 35 U.S.C. 102(b) as being anticipated by the catalog of Applied Biosystems. For clarity and efficiency, and because their defects as prior art are shared, the three references will be addressed together.

The Federal Circuit has stated the relevant analysis for anticipation as follows:

"A claim is anticipated only if each and every element as set forth in the claims is found, either expressly or inherently described, in a single prior art reference."<sup>1</sup>

In the Office Action of August 24, 2004 the Examiner argues:

"The response asserts that the prior art does not teach the specific variant allele elements of the present claims. This argument has been reviewed but is not convincing because the claims recite "reagents which detect the presence of variant alleles of two or more genes. . . ." This limitation does not require any allele specific elements. Reagents which detect the presence of variant alleles encompasses any product which may enable detection of variant alleles." (Office Action of August 24, 2004, pages 4-5).

Applicant respectfully disagrees. On pages 4, 8 and 12 of Office Action of August 24, 2004 the Examiner repetitively argues:

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<sup>1</sup> *Verdegaal Bros. V. Union Oil of California*, 2 USPQ2d 1051, 1053 (Fed.Cir. 1987)

“ . . . the claims recite “reagents which detect the presence of variant alleles of two or more genes...” This limitation does not require any allele specific elements.”

The reason the limitation does not appear to require any allele specific elements is that the Examiner only partially quotes the claim to exclude the succeeding and patentably distinct element i.e., “. . . selected from the group consisting of *BChE*, *CYP2D6*, *F5*, *F2*, *CACNAIS*, *MTHFR*, *MTR*, *MTRR*, *CBS*, *TNF $\alpha$*  and *TNF $\beta$* .” The catalog pages do not teach instructions for using a kit for generating a perioperative genomic profile for a subject. The catalog pages do not teach computer programs or information stored in a memory to optimize perioperative care. The prior art references do not teach a kit having components that provide a subject-specific clinical pathway of medical intervention if used.

In order to further the prosecution of the present case while not acquiescing to the Examiner’s argument, and retaining the right to prosecute the original claims (or similar claims) in the future, Applicant has added claims to recite: “reagents configured such that when exposed to a sample containing target nucleic acid from a perioperative subject, said subject being a patient scheduled for a surgical procedure that has not yet completed said surgical procedure, are sufficient to detect the presence or absence of variant alleles in two or more genes associated with two or more conditions selected from the group consisting of *BChE*, *CYP2D6*, *F5*, *F2*, *CACNAIS*, *MTHFR*, *MTR*, *MTRR*, *CBS*, *TNF $\alpha$*  and *TNF $\beta$*  so as to generate a genomic profile for use in selecting a perioperative course of action for said subject” (Claims 72, 84, and 101); and “A perioperative genomic profile kit having component parts configured such that when exposed to a sample containing target nucleic acid from a perioperative subject, said subject being a patient scheduled for a surgical procedure that has not yet completed said surgical procedure, are sufficient to detect the presence or absence of variant alleles in two or more genes associated with two or more conditions selected from the group consisting of *BChE*, *CYP2D6*, *F5*, *F2*, *CACNAIS*, *MTHFR*, *MTR*, *MTRR*, *CBS*, *TNF $\alpha$*  and *TNF $\beta$* , so as to generate a genomic

profile for use in selecting a perioperative course of action for said subject” (Claims 106 and 107).

Applicant respectfully submits that not one of the three catalog references cited by the Examiner teach each and every element as set forth in the claims.

In view of the above, Applicant requests that these rejections be withdrawn.

## **II. THE EXAMINER HAS IMPROPERLY APPLIED THE LAW OF *In re Ngai* WHICH STANDS FOR THE PATENTABILITY OF THE PRESENT INVENTION**

In the Office Action of August 24, 2004 the Examiner asserts two distinct holdings from *In re Ngai*, one of which is shared by the CAFC. The other is not. The CAFC holds in *In re Ngai* that an inventor is not “entitled to patent a known product by simply attaching a set of instructions to that product” (*In re Ngai* 367 F.3d 1136, 1338). That is, such a product is anticipated by the prior art under 35 U.S.C. 102(b). The Examiner acknowledges this proper interpretation in the Office Action of August 24, 2004 on page 3 “(holding that an inventor could not patent known kits by simply attaching new set of instructions to that product”). However, when the product is not known as in the present invention (*i.e.*, there is no pre-existing kit for generating a perioperative genomic profile for a subject), then the court’s holding in *In re Ngai* specifically does not bar patentability of a new set of instructions that are functionally related to a previously unknown kit.

The Examiner’s second, and improper, interpretation of the CAFC’s holding in *In re Ngai* is that “the inclusion of instructions is not considered to provide a patentable limitation on the claims because the instructions merely represent a statement of intended use in the form of instructions in a kit” erroneously asserted by the Examiner as a general matter. (Office Action of August 24, 2004, page 3). The CAFC has never issued the Examiner’s supposed broad holding either in *In re Ngai*, or elsewhere. The Examiner argues “Since the facts and analysis of the instant application and *Ngai* are the same, *Ngai* is deemed the closest authority on the issue of whether printed instructions in a previously disclosed kit makes the kit patentable.” (Office Action of August 24, 2004,

page 6). To the contrary, the facts and analysis of *In re Ngai* and the present invention are diametrically distinct. A kit for generating a perioperative genomic profile for a subject is a previously undisclosed product. The instructions of the present invention are new, unobvious and functionally related to the substrate kit. Instructions and reagents of the present invention are interrelated, so as to produce a new product useful for the purpose of generating a perioperative genomic profile for a subject. Instructions of the present invention do not achieve their purpose of generating a perioperative genomic profile without the reagents, and the reagents of the present invention do not produce the desired result without instructions (see the Declaration of Dr. Morris Waxler, and Section B.4. dated September 8, 2003). Because the instructions of the present invention are 1) functionally related to a 2) previously unknown product, the Applicant is entitled to the Claims.

The CAFC's narrow holding in *In re Ngai* is that, under the facts of *In re Ngai*, the printed matter of *In re Ngai* is not 1) functionally related to a 2) unknown product. Indeed, the court's holdings in *In re Ngai*, and *In re Gulack*, stand on point for the patentability of instructions that are functionally related to a previously unknown product, as are the kits of the present invention. The claimed instructions of the present invention clearly result in a structural and manipulative differences (*In re Casey*) between the manufacturer's catalogs cited by the Examiner as prior art, and the articles and compositions of the present claims. Rather than remaining fully functional, the useful, concrete, and tangible aspects of the kits of the present claims are not maintained after removal of the claimed instructions (see Declaration of Dr. Morris Waxler of September 8, 2003).

On page 11 of the Office Action of August 24, 2004 the Examiner argues that "This computer program, thus meets the limitations of Claims 46-47, *as the instructions on the computer program do not carry patentable weight* for the reasons discussed below for instructions." The Examiner is mistaken (*In re Beauregard*, 53 F. 3d 1583, 35 USPQ2d 1383 (Fed. Cir. 1995)).

In order to further the prosecution of the present case while not acquiescing to the Examiner's argument, and retaining the right to prosecute the original claims (or similar claims) in the future, Applicant has added claims to recite "a computer program

comprising instructions which direct a processor to analyze data derived from use of said reagents” (Claims 72, 84, 101). Instructions recited by the added Claims are novel, physical components dictating the manipulations of physical objects and activities that, as components of the claimed kits, implement a set of actions to accomplish a useful, concrete and tangible result. The claimed and patentable instructions for operation of the present invention embody functional components that interact with other components of the claimed kits in novel modes of cooperation, thereby permitting the kit’s functionality to be realized. Hence, the instructions of Claims 72-105 are physical component parts of the Claims. A Claim that recites “A system comprising component Y and component Z, wherein component Z is configured to permit component Y to find use in process X” is patentable if the prior art does not teach the use of component Y in process X, or does not teach the use of component Z that is configured to facilitate the use of Y for X. The instructions of the present invention direct, for example, a treatment course of action utilizing physically organized data structures for two or more assays which are not fixed or determinate beforehand. Thus, a subject’s preferred clinical pathway cannot properly be executed in advance, absent the results of the assay as instructed. Instructions that cause and direct a particular treatment course of action utilize results from two or more genotypes. A combination of variant alleles may well instruct one course of action rather than another. Contrary to thoroughly addressing these facts, the Examiner has been mute in response.

Applicant respectfully submits that not one of the three catalog references cited by the Examiner teach each and every element as set forth in the claims. Because 35 U.S.C, 102(b) is satisfied, there is no statutory basis for the Examiner’s rejection, and the claims must be passed into allowance.

**III. DR. MORRIS WAXLER'S DECLARATION IS EVIDENCE OF A FUNCTIONAL RELATIONSHIP BETWEEN OPERATIONAL INSTRUCTIONS AND THE PERIOPERATIVE GENOMIC PROFILE KITS OF THE PRESENT INVENTION**

The Examiner argues:

“Moreover the Declaration of Morris Waxler has been thoroughly considered and deemed not persuasive. The Declaration is specifically designed to establish that instructions for kits, for the purpose of the FDA, are considered functional by the FDA. This argument has been thoroughly reviewed, but is not found persuasive because the standard to patentability does not rely on any requirements made by the FDA. As provided in MPEP 2107.10, for example, it is clear that the requirements for FDA and patent approval should not be confused. Thus it is clear that the requirements for the FDA approval and for patent approval are not parallel and conclusions regarding FDA requirements are not persuasive of binding on the patent process.” (Office Action of August 24, 2004, page 6).

In this argument the Examiner has made a number of errors. First, the only reference to the FDA in MPEP 2107.01 addresses therapeutic utility, stating that standards for patentability are legitimately lower than standards for FDA approval for safety and efficacy of pharmaceutical inventions (“FDA approval is not a prerequisite for finding a compound useful within the meaning of the patent laws.”) To the contrary, the present invention is not a pharmaceutical invention. Moreover, the Examiner has not asserted a 35 U.S.C. 101 rejection against the present invention for lack of utility. In turn, MPEP 2107.01 manifests no guidance on the patentability of instructions for use of a previously unknown product, or for appraising the presence or absence of a functional relationship between novel and unobvious instructions and the unknown product. As well, the CAFC asserts, and the MPEP confirms, that a patent may issue despite failing to meet the higher FDA barrier, the exact opposite circumstance of the present disclosure.

Moreover, the Examiner has misinterpreted both the purpose and the content of Dr. Waxler's Declaration. The Declaration of an expert explains that it is a matter of fact that instructions for the use of an *in vitro* genetic diagnostic kit bear a critical functional relationship to the components of the kit, and that the function of an *in vitro* genetic diagnostic kit depends on the instructions.

“The function of an *in vitro* genetic diagnostic kit depends on the instructions to be approved by the Food & Drug Administration; without instructions the *in vitro* genetic diagnostic kit is not considered to be functional by the Food & Drug Administration.”

“an *in vitro* genetic diagnostic kit does not, and cannot, function equally effectively with or without instructions.”

“The functional relationship between an *in vitro* genetic diagnostic kit and its operation is critical such that component instructions must undergo rigorous Food & Drug Administration scrutiny before the kit may be manufactured or marketed in order to assure its safety, efficacy and reliability.”

“Without Food & Drug Administration approved instructions for its operation an *in vitro* genetic diagnostic kit cannot be manufactured or marketed.”  
(Declaration of Morris Waxler, Ph.D. under 37 CFR §1.132, page 1)

Hence, the Declaration of Dr. Waxler represents objective, factual evidence of a functional relationship between instructions of the present invention that enable use of the reagents, and instructions for the use of data obtained by use of the reagents in the hands of practitioners. The Examiner has presented no evidence in support of the lack of a functional relationship between the claimed instructions and other components of the kits, or in contradiction to Dr. Waxler's Declaration. The Examiner's rejection standing alone is not evidence. The Examiner's citation of MPEP 2107.01 fails to remedy this deficiency, nor is the Examiner in possession of countervailing factual evidence.

Therefore, Applicant requests the Examiner to withdraw the rejections.



**IV. THE EXAMINER’S “PHYSICALLY OR CHEMICALLY AFFECT THE CHEMICAL NATURE” AND “USEFUL FOR OTHER PURPOSE” STANDARDS ARE NOT THE LAW UNDER 35 U.S.C. 102(b)**

The Examiner argues:

“With respect to the arguments (page 20-22) of the response filed on June 30, 2004, the response argues that “physically or chemically affect the chemical nature” and “uses for other purpose” is not the law. This argument has been thoroughly reviewed, but is not found persuasive because it is clear from the decision of *Ngai* that since the known products are not changed, the inventor can not patent kits simply by attaching new set of instructions to that product.” (Office Action of August 24, 2004 page 6).

First, *In re Ngai* makes no mention of either of the Examiner’s improper standards proposed by the Examiner for establishing the validity or invalidity of novel, unobvious instructions by anticipation. Nor in the Office Action of August 24, 2004 has the Examiner brought forward support in any citation to relevant case law, the MPEP, an affidavit, or other authority for these standards in which the legal test for a functional relationship between instructions and a substrate rests on whether operational instructions “physically or chemically affect the chemical nature of the components of the kit.”, or whether components of the kit are “useful for other purposes”, as requested by the Applicant in the response filed on June 30, 2004. These are non-legal and innovative standards that the Examiner has made up, and do not comport with the law.

Second, the products of the present invention (kits for generating a perioperative genomic profile for a subject), are not previously known or existing. Third, the products of the present invention (kits for generating a perioperative genomic profile for a subject), are specifically changed by the claimed instructions. Fourth, in the response filed June 30, 2004 Applicant directed the Examiner to abundant examples in the Specification of the present invention of instructions that both chemically and physically affect the chemical nature of the components of the kit (See Section I.B. “Criteria for Selection of

Markers”, page 32, Section I.C. “Categories of Markers”, page 34, Experimental Example 1 “Perioperative Genomic Screening for Anesthesia Markers”, page 53, Experimental Example 2 “Generation of Genomic Profiles”, page 57). The Examiner has not responded to these citations in the Office Action of August 24, 2004.

Therefore, Applicant requests the Examiner to withdraw the rejections.

**V. THE EXAMINER HAS IMPROPERLY EXAMINED CLAIM 71**

In the Office Action of August 24, 2004 the Examiner argues in whole:

“With respect to Claim 71, the recitation “component parts which detect the presence of variant alleles” appears to be very similar to “reagents” of Claim 45. For the same reasons above, “component parts” has been interpreted very broadly to encompass any part which detects alleles.” (Office Action of August 24, 2004, page 7).

The Examiner has failed to properly address the patentability of Claim 71. In particular, the Examiner rejects Claim 71 on grounds that are irrelevant to the claim. In the Office Action of August 24, 2004 the Examiner has rejected Claim 71 under 35 U.S.C. 102(b) as being anticipated by the catalogs of three manufacturers: Boehringer Mannheim; Perkin Elmer; and Applied Biosystems. Not one of the Examiner’s three prior art references recites information to optimize perioperative care as a claim element. Not one of the Examiner’s three prior art references recites a specific clinical pathway of medical intervention for a subject as a claim element (Claim 106), or a specific clinical pathway of anesthesia intervention as a claim element (Claim 107). In the Office Action of August 24, 2004 the Examiner persists in re-asserting a rejection under 35 U.S.C. 102(b) only by improperly ignoring the absence of these limitations in the catalogs cited as prior art reference (page 7). The Examiner’s assertion that “component parts” are identical to “reagents” is conclusory and unsupported.

Therefore, Applicant requests the Examiner to withdraw the rejections.

**V. CLAMS OF THE PRESENT INVENTION ARE NON-OBVIOUS**

A *prima facie* case of obviousness requires the Examiner to cite to a reference which a) discloses all the elements of the claimed invention, b) suggests or motivates one of ordinary skill in the art to combine the claim elements to yield the claimed invention, and c) provides a reasonable expectation of success should the claimed combination be carried out. Failure to establish any one of these three requirements negates a finding of a *prima facie* case and, without more, entitles the Applicants to allowance of the claims in issue. (MPEP)

**V.a. The Examiner's Combinations of References Do Not Teach All Elements of The Claims**

In the Office Action of August 24, 2004 the Examiner argues:

“Thus the ordinary artisan would have been motivated to have packaged the primers, probes, and reagents of Rosen which are necessary for determining the genotypes of TNF-alpha and beta which are associated with liver donor rejection into a kit, as taught by Ahern for the express purpose of saving time and money.” (Page 16).

And:

“Thus, the ordinary artisan would have been motivated to have packaged the primers, probes and reagents of Tarkowski which are associated with AD rejection [sic] into a kit, as taught by Ahern for the express purpose of saving time and money.” (Page 17).

Applicant respectfully disagrees. Neither Rosen plus Ahern, or Tarkowski plus Ahern, teach a computer program comprising instructions, nor has the Examiner rejected Claims 46 and 47 in view of these combinations. However, in order to further the

prosecution of the present case while not acquiescing to the Examiner's argument, and retaining the right to prosecute the original claims (or similar claims) in the future, Applicant has added claims to recite: "reagents configured such that when exposed to a sample containing target nucleic acid from a perioperative subject, said subject being a patient scheduled for a surgical procedure that has not yet completed said surgical procedure, are sufficient to detect the presence or absence of variant alleles in two or more genes associated with two or more conditions selected from the group consisting of *BChE*, *CYP2D6*, *F5*, *F2*, *CACNAIS*, *MTHFR*, *MTR*, *MTRR*, *CBS*, *TNF $\alpha$*  and *TNF $\beta$*  so as to generate a genomic profile for use in selecting a perioperative course of action for said subject" (Claims 72, 84, and 101); and "a computer program comprising instructions which direct a processor to analyze data derived from use of said reagents" (Claims 72, 84, 101); and "a perioperative genomic profile kit having component parts configured such that when exposed to a sample containing target nucleic acid from a perioperative subject, said subject being a patient scheduled for a surgical procedure that has not yet completed said surgical procedure, are sufficient to detect the presence or absence of variant alleles in two or more genes associated with two or more conditions selected from the group consisting of *BChE*, *CYP2D6*, *F5*, *F2*, *CACNAIS*, *MTHFR*, *MTR*, *MTRR*, *CBS*, *TNF $\alpha$*  and *TNF $\beta$* , so as to generate a genomic profile for use in selecting a perioperative course of action for said subject" (Claims 106 and 107).

Neither Rosen plus Ahern, or Tarkowski plus Ahern, teach or suggest the reagents of Claims 72, 84, or 101, or the component parts of Claims 106 and 107. Neither Rosen plus Ahern, or Tarkowski plus Ahern, teach or suggest two or more genes associated with two or more conditions (Claims 72, 84, 101, 106, 107). Neither Rosen plus Ahern, or Tarkowski plus Ahern, teach or suggest the genomic profiles of the kits of the present invention for use in selecting a perioperative course of action for a subject (Claims 72, 84, 101). Neither Rosen plus Ahern, or Tarkowski plus Ahern, teach or suggest a computer program comprising instructions which direct a processor to analyze data derived from use of said reagents (Claims 72, 84, 101). Neither Rosen plus Ahern, or Tarkowski plus Ahern, teach or suggest an anesthesia treatment course of action (Claim 84).

Thus, the Examiner's combinations fail to teach every element of the presently claimed invention and, without more, the Examiner is unable to sustain a *prima facie* case of obviousness. In view of the above, the Applicant respectfully requests that the rejection be withdrawn.

**V.b. The Examiner's References Do Not Provide a Suggestion or Motivation to Combine the Recited Elements**

An essential requirement for a *prima facie* case of obviousness is whether a person of ordinary skill in the art would be motivated to modify the reference to arrive at the claimed invention. Applicant asserts that the Examiner has not met the burden of establishing a *prima facie* case of obviousness. *Prima facie* obviousness based on a combination of references requires that the prior art provide "a reason, suggestion, or motivation to lead an inventor to combine those references."<sup>2</sup> "The range of sources available, however, does not diminish the requirement for actual evidence. That is, the showing must be clear and particular. Broad conclusory statements regarding the teaching of multiple references, standing alone, are not "evidence"."<sup>3</sup> The suggestion to combine prior art references must come from the cited references, not from the applicant's disclosure.<sup>4</sup>

As set forth in *In re Kotzab*, 217 F.3d 1365, 1369-70, 55 USPQ2d 1313, 1316 (Fed. Cir. 2000):

"A critical step in analyzing the patentability of claims pursuant to section 103(a) is casting the mind back to the time of invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and the then-accepted wisdom in the field. . . . Close adherence to this methodology is especially important in cases where the very ease with which the invention can be understood may prompt one "to fall victim to the insidious effect of a hindsight

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<sup>2</sup> *Pro-Mold and Tool Co. v. Great Lakes Plastics Inc.*, 75 F.3d 1568, 1573, 37 USPQ2d 1626, 1629 (Fed. Cir. 1996).

<sup>3</sup> *In re Dembiczak*, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999).

<sup>4</sup> *In re Dow Chemical Co.*, 837 F.2d 469, 473, 5 USPQ2d 1529, 1531 (Fed. Cir. 1998)

syndrome wherein that which only the invention taught is used against its teacher.”

Most if not all inventions arise from a combination of old elements. . . . Thus, every element of a claimed invention may often be found in the prior art. . . . However, identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. . . . Rather, to establish obviousness based on a combination of the elements disclosed in the prior art, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the applicant.”

The Examiner’s rejection does not establish the requisite suggestion in the art to combine elements disclosed in the prior art. “A rejection cannot be predicated on the mere identification . . . of individual components of claimed limitations. Rather, particular findings must be made as to the reasons the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed.”<sup>5</sup> The need for a specific suggestion in the cited references is absolute: “The factual inquiry whether to combine references must be thorough and searching. It must be based on objective evidence of record. This precedent has been reinforced in myriad decisions and cannot be dispensed with.”<sup>6</sup>

Contrary to legal requirement, the Examiner’s conclusory and unsupported assertion regarding the motivation of an ordinary artisan in view of Rosen plus Ahern, or Tarkowski plus Ahern, is not evidence. The Examiner does not, and cannot, point to which specific teachings in Rosen plus Ahern, or Tarkowski plus Ahern, motivate the ordinary artisan to combine the claimed elements thereby arriving at the perioperative genomic profile kits of the present invention. Rather, the Examiner’s assertion reflects the absence of evidence, and thus does not fulfill the obligation of the Patent and Trademark Office.

Because the Examiner has failed to establish motivation to modify Rosen plus Ahern, or Tarkowski plus Ahern, to arrive at the claimed invention, a *prima facie* case of

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<sup>5</sup> *Ecolochem*, 227 F.3d, 1361, 1375, 56 USPQ2d 1065, 1076, quoting *Kotzab*, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1317.

<sup>6</sup> *In Re Sang Su Lee*, 277 F.3d 1338, 1341, USPQ2d 1430, 1433.

obviousness must fail. In view of the above, Applicant respectfully requests that the rejection be withdrawn.

**V.c. The Examiner's Combinations of References Do Not Provide a Reasonable Expectation of Success**

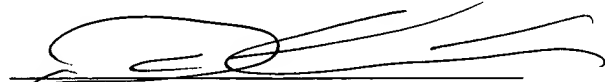
The Examiner's combinations are not sufficient for a reasonable expectation of success. Alone, or in combination Rosen plus Ahern, or Tarkowski plus Ahern, provide no specific guidance, general guidance, or any guidance whatsoever in selecting reagents configured such that when exposed to a sample containing target nucleic acid from a perioperative subject, said subject being a patient scheduled for a surgical procedure that has not yet completed said surgical procedure, are sufficient to detect the presence or absence of variant alleles in two or more genes associated with two or more conditions selected from the group consisting of *BChE*, *CYP2D6*, *F5*, *F2*, *CACNAIS*, *MTHFR*, *MTR*, *MTRR*, *CBS*, *TNF $\alpha$*  and *TNF $\beta$*  so as to generate a genomic profile for use in selecting a perioperative course of action for said subject. Therefore, the Examiner cannot advance any evidence in support of the contention that the artisan using the methods of Rosen plus Ahern, or Tarkowski plus Ahern, would have had a reasonable expectation of success. Because the Examiner is not able to show that a reasonable expectation of success may be found in Rosen plus Ahern, or Tarkowski plus Ahern, the third prong of a *prima facie* case of obviousness is defective, as are prongs one and two.

To the contrary, the Examiner has failed to establish not one, but all three of the requirements for a *prima facie* case of obviousness, thus entitling Applicant to withdrawal of this rejection.

**VI. CONCLUSION**

It is respectfully submitted that Applicant's claims as should be passed into allowance. Should the Examiner believe that a telephone interview would aid in the prosecution of this application Applicant encourages the Examiner to call the undersigned collect at (608) 218-6900.

Dated: 2/14/05



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